UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,707	09/18/2003	Michael R. Krause	200311239-1	6814

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EXAMINER
WILSER, MICHAEL P

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/664,707	KRAUSE ET. AL.
	Examiner	Art Unit	
	Michael Wilser	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _30 July 2007_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-21_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-21_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-21 are pending in this application.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Bender

et al. (US 6,070,189).

4.   As per Claim 1, Bender teaches the invention as claimed including a notification

mechanism (abstract, lines 1-3) comprising:

        a. a plurality of completion queue handlers associated with a communication

device, each of the plurality of completion queue handlers associated with a process

(column 4, lines 4-6); and

        b. at least one completion queue associated with each one of the plurality of

completion queue handlers (column 5, lines 13-18).

5.   As per Claim 2, Bender further discloses the process is associated with at least

one processor (abstract, lines 1-3).

6.   As per Claim 3, Bender further discloses each of the plurality of completion

queue handlers generates an interrupt to the processor associated with the process

(column 4, lines 60-67).

7.   As per Claim 4, Bender further discloses a verb modifies an association of the at

least one completion queue associated with at least one of the plurality of completion

queue handlers (column 4, lines 60-65).

8.   As per Claim 5, Bender further discloses a verb creates the at least one

completion queue associated with at least one of the plurality of completion queue

handlers (column 4, lines 29-31).

9.   As per Claim 6, Bender further discloses a verb returns a number of the plurality

of completion queue handlers that are associated with the communication device

(column 4, lines 37-43).

10.   As per Claim 7, Bender further discloses each of the plurality of completion

queue handlers are associated with at least one completion queue through a completion

queue handler identifier (column 4, lines 37-43).

11.　　As per Claim 8, Bender teaches the invention as claimed including a network

(column 3, line 2) comprising:

　　　　a. a plurality of systems (abstract, lines 1-3);

　　　　b. a switch network that connects the plurality of systems for communication

(column 3, lines 11-15); and

　　　　c. at least one of the plurality of systems, wherein the at least one of the plurality

of systems (abstract, lines 1-3) comprises:

　　　　d. a communication device having a plurality of completion queues (column 4,

lines 60-62); and

　　　　e. at least two completion handlers associated with the communication device,

wherein each completion handler is associated with one of a plurality of processes and

associated with at least one of the plurality of completion queues (column 15, lines 48-

62).

12.　　As per Claim 9, Bender further discloses the plurality of completion queues are

associated with a plurality of queues (column 4, lines 60-62).

13.　　As per Claim 10, Bender further discloses a first of at least two completion

handlers is associated with one of the plurality of processes and a second of the at least

two completion handlers is associated with another of plurality of processes (abstract,

lines 1-3).

14.   As per Claim 11, Bender further discloses the first of at least two completion

handlers communicates a first interrupt to a first processor associated with one of the

plurality of processes and the second of the at least two completion handlers

communicates a second interrupt to a second processor associated with another of the

plurality of processes (column 5, lines 11-18).

15.   As per Claim 12, Bender further discloses a verb modifies the association of the

first of at least two completion handlers with one of the plurality of processes (column 4,

lines 60-65).

16.   As per Claim 13, Bender further discloses the at least two completion handlers

reside in memory in the communication device (column 4, lines 18-36).

17.   As per Claim 14, Bender further discloses the at least two completion handlers

reside in memory at least one of the plurality of systems that is external to the

communication device (column 4, lines 18-36).

18.   As per Claim 15, Bender teaches the invention as claimed including a method for

providing notification to a plurality of processes (abstract, lines 1-3) comprising:

        a. creating a plurality of completion queues on a communication device, each of

the plurality of completion queues associated with at least one of a plurality of

completion queue handlers that are associated with the communication device, wherein

each of the plurality of completion queue handlers are associated with one of a plurality

of processes (column 4, lines 60-62 & column 15, lines 48-62);

      b. placing a completion queue entry on one of the plurality of completion queues

(column 5, lines 13-18);

      c. invoking one of a plurality of completion queue handlers associated with the

one of the plurality of completion queues (column 4, lines 60-62); and

      d. notifying the one of a plurality of processes associated with the one of a

plurality of completion queue handlers (column 15, lines 48-50).

19.   As per Claim 16, Bender further discloses executing a plurality of processes on a

plurality of processors (abstract, lines 1-3).

20.   As per Claim 17, Bender further discloses issuing a verb to return a number of

the plurality of completion queue handlers that are associated with the communication

device (column 4, lines 60-65).

21.   As per Claim 18, Bender further discloses the one of a plurality of completion

queue handlers sending an interrupt to one of a plurality of processors (column 4, lines

60-67).

22.   As per Claim 19, Bender further discloses issuing a verb to create one of the plurality of completion queues (column 4, lines 29-31).

23.   As per Claim 20, Bender further discloses modifying the at least one of the plurality of completion queues through the issuance of a verb to modify the association of at least one of the plurality of completion queues with at least one of a plurality of completion queues (column 4, lines 60-65).

24.   As per Claim 21, Bender further discloses the creation of the plurality of completion queues comprises defining each of the plurality of completion queues in a memory (column 4, lines 18-36).

Response to Arguments

25.   Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Wilser whose telephone number is (571) 270-1689. The examiner can normally be reached on Mon-Fri 7:30-5:00 EST (Alt Fridays Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MPW
October 1, 2007